IN THE CLAIMS

Please amend the claims as follows:

1-101. (Canceled)

102. (Previously Presented): Interface link layer device ~~according to claim 97,~~ connected to a first data bus and via a transmission path to at least one other interface link layer device that is connected to a respective second data bus of a plurality of second data busses, comprising:

uplink means to accept a data packet from the first data bus that has a predetermined destination or that has a channel number of a data channel that leads from the first data bus to one of said respective second data bus and to transmit it via said transmission path to said other interface link layer device serving said predetermined destination; and

downlink means to output data packets received via said transmission path from one of said at least one other interface link layer device to a predetermined destination on the first data bus,

wherein said uplink means comprise a first register that reflects destination identifiers which will be accepted,

wherein said destination identifier is a bus identifier of said respective second data bus and said first register comprises a bus enable register identifying said respective second data bus that is serving said predetermined destinations, and

wherein said uplink means comprises a packetizer that is able to repack data packets received from the first data bus into a format of the transmission path that is different to the format of the first data bus.

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103. (Previously Presented): Interface link layer device ~~according to claim 97,~~ connected to a first data bus and via a transmission path to at least one other interface link layer device that is connected to a respective second data bus of a plurality of second data busses, comprising:

uplink means to accept a data packet from the first data bus that has a predetermined destination or that has a channel number of a data channel that leads from the first data bus to one of said respective second data bus and to transmit it via said transmission path to said other interface link layer device serving said predetermined destination; and

downlink means to output data packets received via said transmission path from one of said at least one other interface link layer device to a predetermined destination on the first data bus,

wherein said uplink means comprise a first register that reflects destination identifiers which will be accepted,

wherein said destination identifier is a bus identifier of said respective second data bus and said first register comprises a bus enable register identifying said respective second data bus that is serving said predetermined destinations, and

wherein said downlink means comprises a packet separator that is able to repack data packets received from the transmission path into a format of the first data bus that is different to the format of the transmission path.

104-112 (Canceled)

113. (Previously Presented): Interface link layer device connected to a first data bus and via a transmission path to at least one other interface link layer device that is connected to a respective second data bus of a plurality of second data busses, comprising:

uplink means to accept a data packet from the first data bus that has a predetermined destination or that has a channel number of a data channel that leads from the first data bus to one of said respective second data bus and to transmit it via said transmission path to said other interface link layer device serving said predetermined destination;

downlink means to output data packets received via said transmission path from one of said at least one other interface link layer device to a predetermined destination on the first data bus; and

an acknowledge code generator that generates an acknowledgement to be send to the originator of a data packet accepted from the data bus it is connected to and transmitted via said transmission path to a predetermined destination different to itself.

114. (Previously Presented): Interface link layer device according to claim 113, wherein said acknowledgement indicates a pending action in case data packet is forwarded to another predetermined destination.

115. (Previously Presented): Interface link layer device according to claim 113, wherein said acknowledgement indicates a completed action in case a data packet was forwarded to another predetermined destination and said other destination returns a response packet without any errors.

116. (Previously Presented): Interface link layer device according to claim 113, wherein said acknowledgement indicates an error in case of a data reception error.

117. (Previously Presented): Interface link layer device connected to a first data bus and via a transmission path to at least one other interface link layer device that is connected to a respective second data bus of a plurality of second data busses, comprising:

uplink means to accept a data packet from the first data bus that has a predetermined destination or that has a channel number of a data channel that leads from the first data bus to one of said respective second data bus and to transmit it via said transmission path to said other interface link layer device serving said predetermined destination;

downlink means to output data packets received via said transmission path from one of said at least one other interface link layer device to a predetermined destination on the first data bus; and

a response packet generator that generates a response to be send via the transmission path to the destination of an acknowledge code received via said first data bus.

118. (Previously Presented): Interface link layer device according to claim 117, wherein said response indicates a completed action in case a completed action acknowledge code is received.

119. (Previously Presented): Interface link layer device according to claim 117, wherein no response is sent in case a pending action acknowledge code is received.

120. (Previously Presented): Interface link layer device according to claim 117, wherein said response indicates a busy destination in case a busy acknowledge code is received.

121. (Previously Presented): Interface link layer device according to claim 117, wherein said response indicates a data error in case a data error acknowledge code is received.

122. (Previously Presented): Interface link layer device according to claim 117, wherein said response indicates a type error in case a type error acknowledge code is received.

123. (Previously Presented): Interface link layer device according to claim 117, wherein said response packet generator monitors the request packets output to the first data bus to generate the response packet.